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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,063	06/09/2005	Christophe Martinez	007875-0316315	8903

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EXAMINER
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ROJAS, OMAR R

ART UNIT	PAPER NUMBER
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2874

DATE MAILED: 11/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/538,063

Applicant(s)

MARTINEZ, CHRISTOPHE

Examiner

Omar Rojas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 06/09/2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: Detailed Action.

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The prior art documents submitted by Applicant(s) in the Information Disclosure Statement(s) ("IDS") filed on June 9, 2005 have all been considered and made of record (note the attached copy of form(s) PTO-1449).

### ***Drawings***

3. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "second first recovery and treatment element" (claim 3) and the "formatting element" (claim 31) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing

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sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Specification***

5. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

#### ***Claim Objections***

6. Claim 31 is objected to because of the following informalities: Claim 31 recites the limitation "the photo-detector" without providing a clear antecedent basis for this limitation in either claim 31 itself or any of its base claims. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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8. **Claims 3 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

9. Claim 3 recites the limitation "a *second first* recovery and treatment element." The term "*second first*" is considered ambiguous on its face, thereby making claim 3 indefinite.

10. Claim 9 is rejected under this section as being dependent upon rejected claim 3.

11. For purposes of this examination claim 3 is interpreted as being dependent upon claim 2.

***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. **Claims 1-3, 5, 6, 9, 11, and 14 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Patent No. 6,058,226 to Starodubov provided in the IDS.**

*In re* claims 1 and 11, Starodubov discloses a sampling device 700 comprising:

a substrate (the electro-sensitive layer shown in Fig. 8);

a waveguide core 750 in the substrate, the waveguide core being configured to transport a light wave;

an optical cladding 770 in the substrate, wherein at least a portion of the cladding surrounds at least a portion of the core in a zone of interaction 710/720,

said zone 710/720 comprising a grating configured to couple, in the cladding, a part of the light wave to form a coupled wave,

wherein a refractive index of the cladding is different from a refractive index of the substrate and the refractive index of the cladding is lower than a refractive index of the core at least in a part of the cladding adjacent to the core in the zone of interaction (e.g., see columns 4-6). Figure 8 of Starodubov is reproduced below.

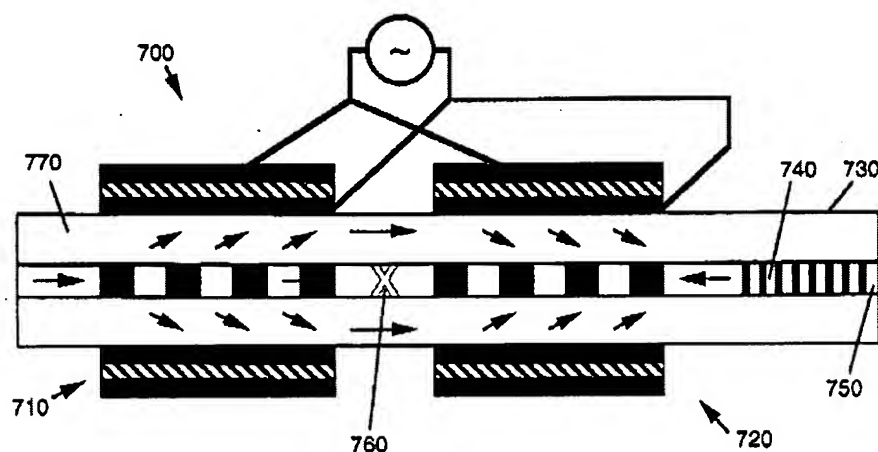


Figure 8

*In re* claims 2, 3, 5, 6 and 9, elements 740 and 760 of Starodubov meet the specified limitations.

*In re* claim 14, the zone of interaction 710/720 of Starodubov is inherently capable of performing filtering and sampling because it comprises the same claimed structural features.

**14. Claims 1-9, 11, and 14-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Publication No. US 2005/0232538 A1 to Martinez et al. ("Martinez").**

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C.

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102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

*In re* claims 1 and 11, Martinez discloses a sampling device (e.g., Figures 2-7) comprising:

a substrate 18;

a waveguide core 23/25 in the substrate, the waveguide core being configured to transport a light wave;

an optical cladding 20 in the substrate, wherein at least a portion of the cladding surrounds at least a portion of the core in a zone of interaction I1/I2,

said zone I1/I2 comprising a grating R1/R2 configured to couple, in the cladding, a part of the light wave to form a coupled wave,

wherein a refractive index of the cladding is different from a refractive index of the substrate and the refractive index of the cladding is lower than a refractive index of the core at least in a part of the cladding adjacent to the core in the zone of interaction (e.g., see ¶¶ [0088]-[0096]). Figure 2 of Martinez is reproduced below.

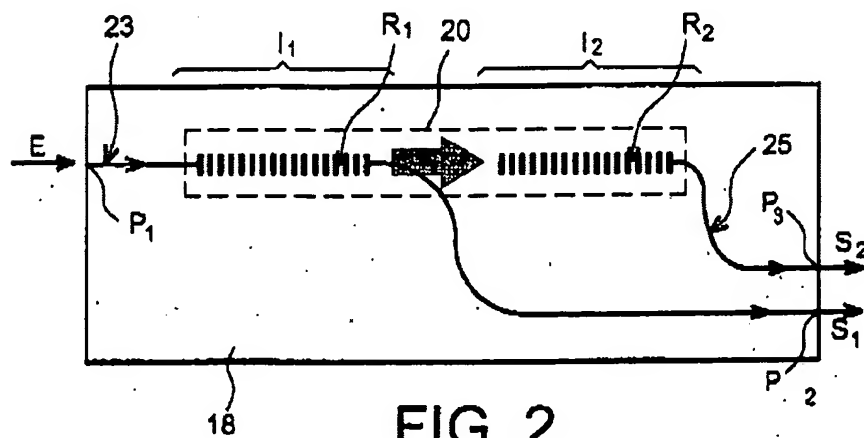


FIG. 2

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*In re* claims 2-9, 11, 14, and 30 the recited limitations are clearly disclosed by Martinez with respect to Figures 2-7.

*In re* claims 15-29, the method steps are clearly suggested by Martinez at ¶¶ [0136]-[0164].

***Claim Rejections - 35 USC § 103***

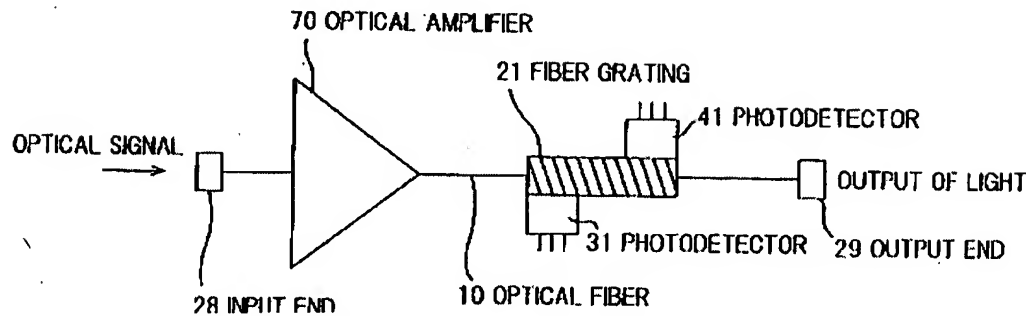
15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**16. Claims 10, 12, 13, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Starodubov as applied to claims 1 and 5 above, and further in view of Patent No. 5,974,212 to Saeki.**

*In re* claims 10, 12, and 13, Starodubov only differs from these claims in that Starodubov does not teach a photodetector, formatting element, and an amplifier as claimed. Saeki, on the hand, teaches a photodetector 31/41 and an amplifier 70 as recited by claims 10, 12, and 13. The "optical amplifier control means" disclosed by Saeki (column 2, lines 43-45) may be considered a formatting element associated with a photodetector as recited by claim 31. The motivation for combining Saeki with Starodubov is to provide for tunable grating in Saeki by using the fiber grating of Starodubov. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to obtain the invention specified by claims 10, 12, 13, and 31. Figure 3 of Saeki is reproduced below.



**FIG. 3****Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Omar Rojas whose telephone number is (571) 272-2357. The examiner can normally be reached on Monday-Friday (12:00PM-8:00PM).

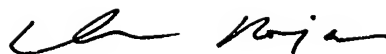
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rod Bovernick, can be reached on (571) 272-2344. The official facsimile number for regular and After Final communications is (571) 273-8300. The examiner's RightFAX number is (571) 273-2357.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Omar Rojas  
Patent Examiner  
Art Unit 2874

or  
October 30, 2006



SUNG PAK  
PRIMARY EXAMINER